MS. REBECCA ROSSOF: That's fine. My name is Rebecca Rossof. I teach chemistry and biology at Francis Parker school here in Chicago, and I am very proud that some of my students have joined me here today. I began teaching in 1967, and for the last 20 years have been working with biology and chemistry students and teaching them about nuclear energy. For the last six years, specifically, I have used the Yucca Mountain project as a topic of debate, and through that topic students have learned a lot of factual information and honed their skills of decision-making.

I have also learned a lot through that process. I have learned that I can teach a lot of facts about nuclear energy and nuclear reactions, and information about various storage techniques of waste, but there are many questions about why that I cannot answer. I can teach risk analysis, but I can't answer why we are taking some of those risks. I cannot adequately address the benefits of some of those risks, and, furthermore, I cannot address why I am giving to them these problems to deal with.

1 And in that very lengthy and detailed technical analysis of Yucca Mountain, I find that's one of the major limitations of it, that we are not looking at the moral responsibility to future generations adequately.

I also feel that my students are ready to consider alternatives to the nuclear power industry and also to nuclear arms, and I would like us to consider more alternatives than just the action and no action. I learn that we get trapped into some old modes of thinking. Students are very good at pointing that out to me. So if we get ourselves trapped into action and no action, I think we are heading for trouble.

I was also reminded of that trap and also the need for change, and certainly change in their lifetimes is going to be accelerating much less over the next thousand years. As I was reading two reports that came out in the last couple weeks, in the January 14th issue of Science there was a report about a plutonium oxide, not just plutonium dioxide being formed, but plutonium oxide, that the ratio of plutonium to oxygen -- I'm sorry, of oxygen to plutonium might be greater than two, or something less than three, and in the words of the researcher, the author of that report, they talked about the idea that plutonium dioxide is only, an outcome of plutonium oxidation was a sacred cow.

Though other researchers have seen hints of the higher oxide, the couldn't reconcile their data until now. Slow reaction times make the newly discovered oxide easy to miss. The researcher came out of Los Alamos. Such reaction times become relevant if buried nuclear waste is to remain stable until the next millennium.

If water is present, the hydrogen gas could build up in sealed containers. Moreover, these oxides dissolve easily in water, explaining why plutonium migrates through the ground more quickly than had been expected. This is very important input for people who modeled these migration processes. I would ask that this EIS statement go back and look at that.

Also an article in the January 25th New York Times, which summarized the work which has come out of Russia and has also been presented in conferences in Oxford and is now being repeated again by people at Los Alamos.

For decades the Mandarins of American science assumed that the phase, the Delta phase of plutonium, to be a kind of rock of Gibraltar on which the American nuclear arsenal could be erected, and expected to weather centuries of storms and service. Now, they note this plutonium instability could sharply cut the lifetime of weapon cores, in theory reducing them from perhaps 70 years to as little as 20 years.

Again, a lot of change coming along very quickly that we have to be ready to adapt to. And that's the part of this EIS statement in its great length, its great detail and great analysis, I think is not prepared to help us handle. I would ask --

DR. LAWSON (Facilitator): 30 seconds, please.

MS. ROSSOF: -- that we begin to include that in the statement.

Thank you very much.